

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A process for producing inorganic spheres, which comprises injecting an aqueous liquid containing an inorganic compound through an inlet hole into an organic liquid which flows at a flow rate of from 0.001 to 2 m/s in a laminar flow state in a flow path to form a W/O type emulsion, wherein the Reynolds number for the organic liquid which flows in the flow path is at most 2,100 and solidifying the aqueous liquid containing an inorganic compound in the W/O type emulsion.

Claim 2 (Original): The process for producing inorganic spheres according to Claim 1, wherein the aqueous liquid contains silica, and the inorganic spheres are silica porous spheres.

Claim 3 (Original): The process for producing inorganic spheres according to Claim 2, wherein the W/O type emulsion is gelated by adding an acid.

Claim 4 (Original): The process for producing inorganic spheres according to Claim 1, wherein the organic liquid is a C₉₋₁₂ saturated hydrocarbon.

Claim 5 (Original): The process for producing inorganic spheres according to Claim 1, wherein the Reynolds number of the organic liquid is at most 500.

Claim 6 (Original): The process for producing inorganic spheres according to Claim 1, wherein the ratio of the linear velocity of the organic liquid in a flow direction to the linear velocity of the aqueous liquid in a flow direction is from 1 to 500.

Claim 7 (Original): The process for producing inorganic spheres according to Claim 1, wherein the cross section of the inlet hole has at least one shape selected from the group consisting of circular, rectangular, triangular and elliptic shapes.

Claim 8 (Original): The process for producing inorganic spheres according to Claim 7, wherein the quadruple of the hydraulic radius r of the cross section of the inlet hole is from 0.1 to 500 μm .

Claim 9 (Original): The process for producing inorganic spheres according to Claim 1, wherein the flow path is compartmentalized by a partition wall, and the inlet hole is formed so that it perforates in a thickness direction of one partition wall.

Claim 10 (Original): The process for producing inorganic spheres according to Claim 9, wherein a plurality of the inlet holes are formed on one partition wall with a distance of at least half the diameter of a circle which is circumscribed around the cross-sectional shape of the inlet holes.

Claim 11 (Original): The process for producing inorganic spheres according to Claim 9, wherein at least 100 inlet holes are formed, and the pressure loss of the organic liquid as between the inlet hole which is located at the most upstream side of the organic liquid and one at the most downstream side is from 10 to 1,000 Pa.

Claim 12 (Original): The process for producing inorganic spheres according to Claim 11, wherein the flow path of the organic liquid is installed at an angle of at least 30° to the horizontal plane and the organic liquid flows from bottom to top.

Claim 13 (Original): The process for producing inorganic spheres according to Claim 12, wherein the flow path of the organic liquid is installed vertically to the horizontal plane.

Claim 14 (Original): The process for producing inorganic spheres according to Claim 11, wherein the distance between the inlet hole which is located at the most upstream side of the organic liquid and one at the most downstream side is from 1 to 300 mm.

Claim 15 (Original): The process for producing inorganic spheres according to Claim 11, wherein the number average particle size is from 0.1 to 100 μm .

Claim 16 (Original): The process for producing inorganic spheres according to Claim 9, wherein the quadruple of the hydraulic radius r of the cross section of the inlet hole is from 0.1 to 100 μm , the ratio of the number average particle size of the inorganic spheres to the quadruple of the hydraulic radius r of the cross section is from 0.1 to 5.0, and the ratio of the linear velocity of the organic liquid in a flow direction to the linear velocity of the aqueous liquid in a flow direction is from 10 to 300.

Claim 17 (Original): The process for producing inorganic spheres according to Claim 16, wherein at least 100 inlet holes are formed on one partition wall.

Claim 18 (Original): The process for producing inorganic spheres according to Claim 16, wherein the number average particle size is from 10 to 100 μm .

Claim 19 (Original): The process for producing inorganic spheres according to Claim 16, wherein the value obtained by dividing the standard deviation of the particle size distribution by the number average particle size is at most 0.2.

Claim 20 (Withdrawn): An apparatus for producing inorganic spheres, which is constituted in such a manner that an aqueous liquid containing an inorganic compound is injected into an organic liquid which flows at a flow rate of from 0.001 to 2 m/s in a laminar flow state in a flow path compartmentalized by a partition wall through at least 100 inlet holes which perforate in a thickness direction of the partition wall to form a W/O type emulsion, and the aqueous liquid containing an inorganic compound in the emulsion is solidified to form inorganic spheres, wherein the pressure loss of the organic liquid as between the inlet hole which is located at the most upstream side of the organic liquid and one at the most downstream side is from 10 to 1,000 Pa.

Claim 21 (Withdrawn): The apparatus for producing inorganic spheres according to Claim 20, wherein the organic liquid flows from bottom to top in the flow path provided at an angle of at least 30° to the horizontal plane.

Claim 22 (Withdrawn): The apparatus for producing inorganic spheres according to Claim 21, wherein the flow path is provided vertically to the horizontal plane.

Claim 23 (Withdrawn): The apparatus for producing inorganic spheres according to Claim 20, wherein the distance between the inlet hole which is located at the most upstream side of the organic liquid and one at the most downstream side is from 1 to 300 mm.

DISCUSSION OF AMENDMENTS

Claim 1 is currently amended.

Claims 2-19 are original.

Claims 20-23 are withdrawn.

The amendment to Claim 1 is supported on page 8, lines 18 and 19 of the specification.

No new matter has been added by the amendment.

Upon entry of the amendment, Claims 1-23 will be pending with Claims 1-19 under active consideration.